

# Unintentional Poisonings: From Data to Action

## Joint Legislative Health Care Oversight Committee

Dr. Ruth Petersen and Scott Proescholdbell, MPH

**Chronic Disease and Injury Section**

**Division of Public Health**

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North Carolina  
Injury & Violence  
PREVENTION Branch

## Leading Causes of N.C. Resident Deaths and Years of Life Lost (2008)

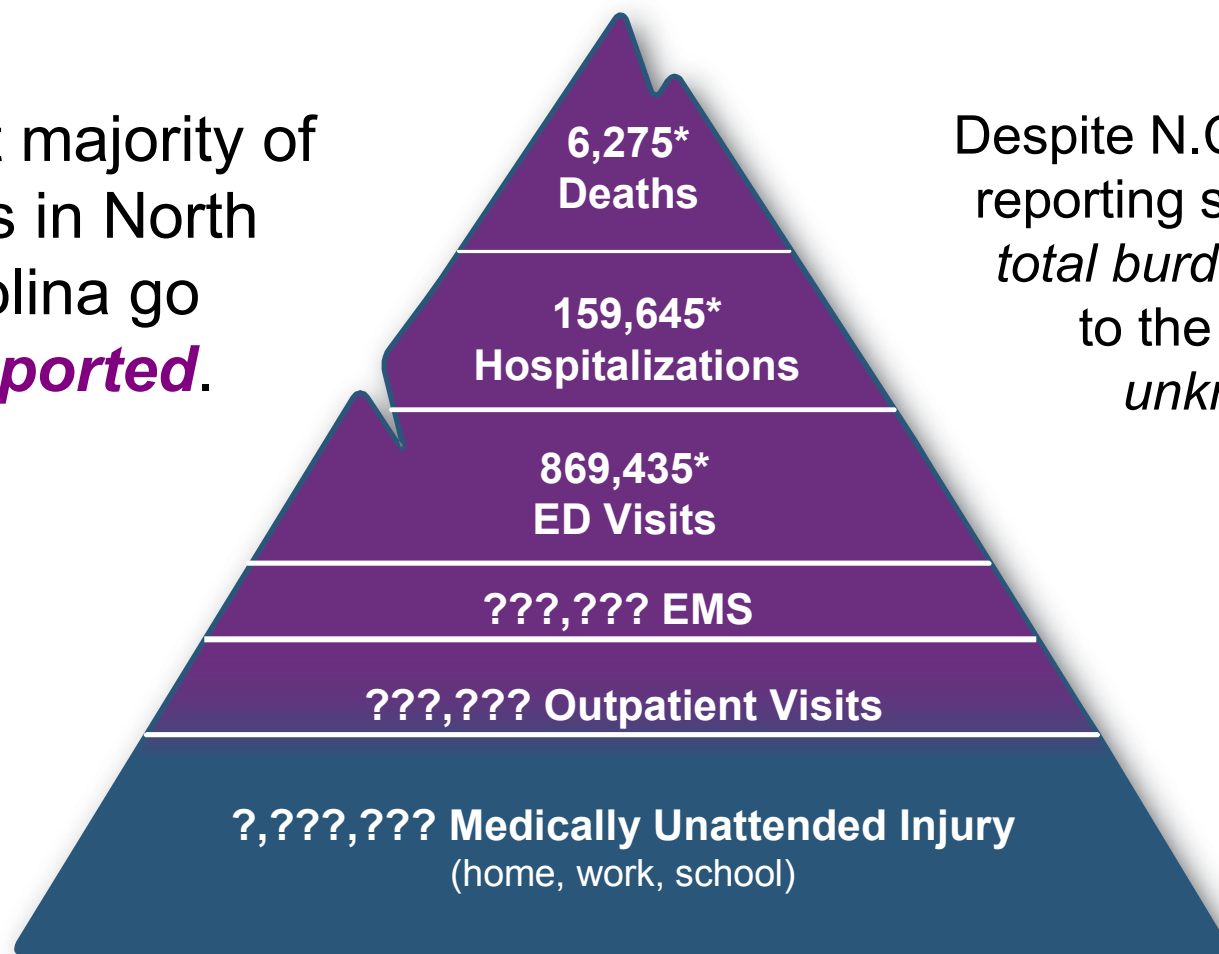
Cause of Death	Total Deaths	Average Years of Life Lost *	Total Years of Life Lost *
Diseases of Heart	17,417	2.75	47,904
Cancer	17,403	3.41	59,405
Injury †	6,275	20.26	127,184
Chronic Lower Respiratory Diseases (Asthma, COPD)	4,527	1.41	6,396
Stroke	4,477	1.97	8,830
Alzheimer's disease	2,620	0.08	204
Diabetes Mellitus	2,164	3.44	7,435
Hypertension	757	2.24	1,692
Atherosclerosis	177	0.59	104
<b>Total Deaths (all causes)</b>	<b>77,057</b>	<b>5.14</b>	<b>396,368</b>
<b>Chronic Disease Deaths</b>	<b>52,219</b>	<b>2.75</b>	<b>143,545</b>

\* Based on deaths that occurred prior to age 65

† See slide 39 for detailed breakdown of injury deaths and years of life lost

# Deaths from Injury and Violence are Only the Tip of the Iceberg

The vast majority of  
injuries in North  
Carolina go  
*unreported.*



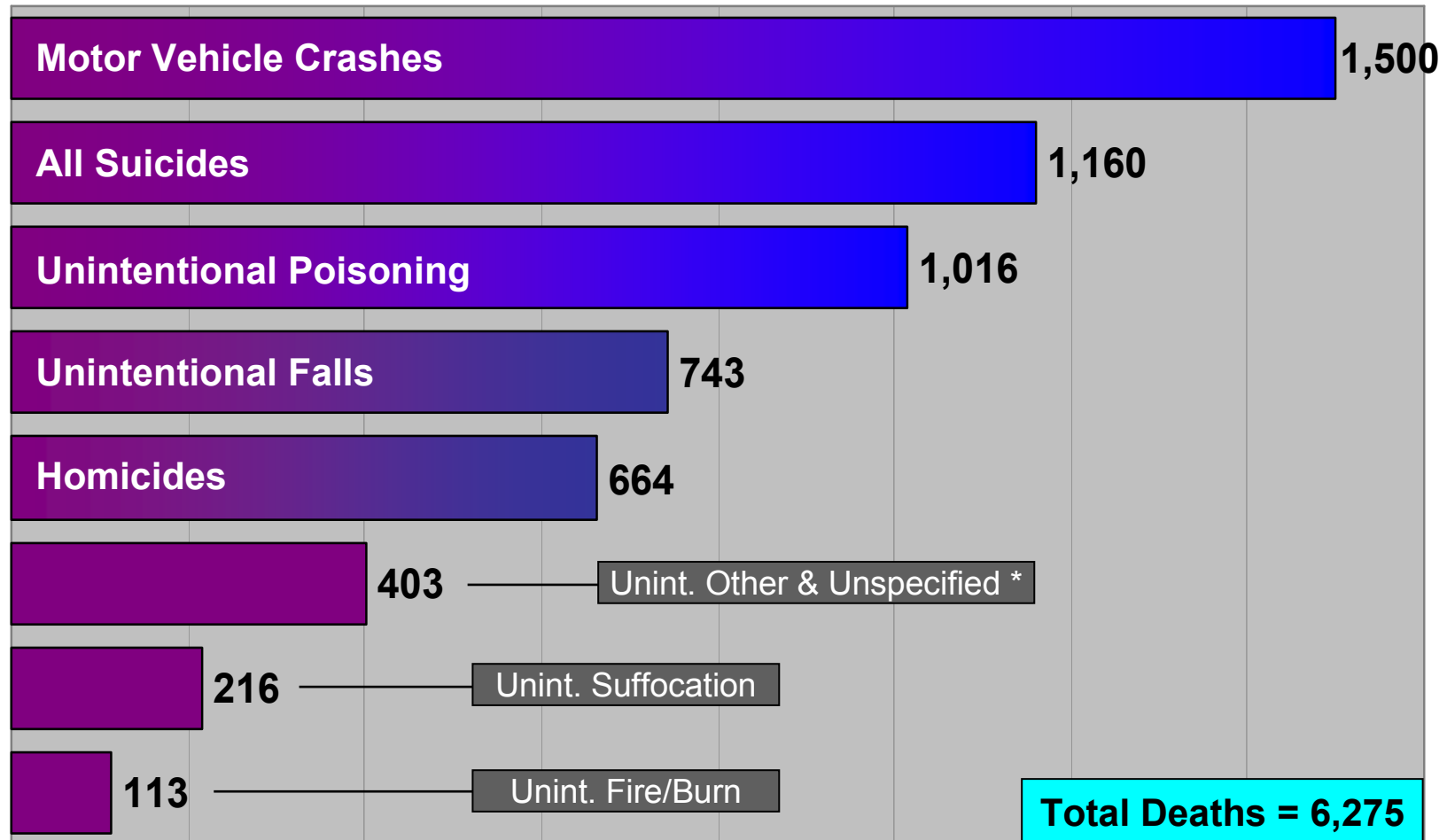
Despite N.C.'s excellent  
reporting systems, the  
*total burden* of injury  
to the state is  
*unknown.*

## INJURY ICEBERG

\* 2008 death file, hospitalization discharge and NC DETECT (Emergency Department visits)

# Leading Causes of Injury Deaths

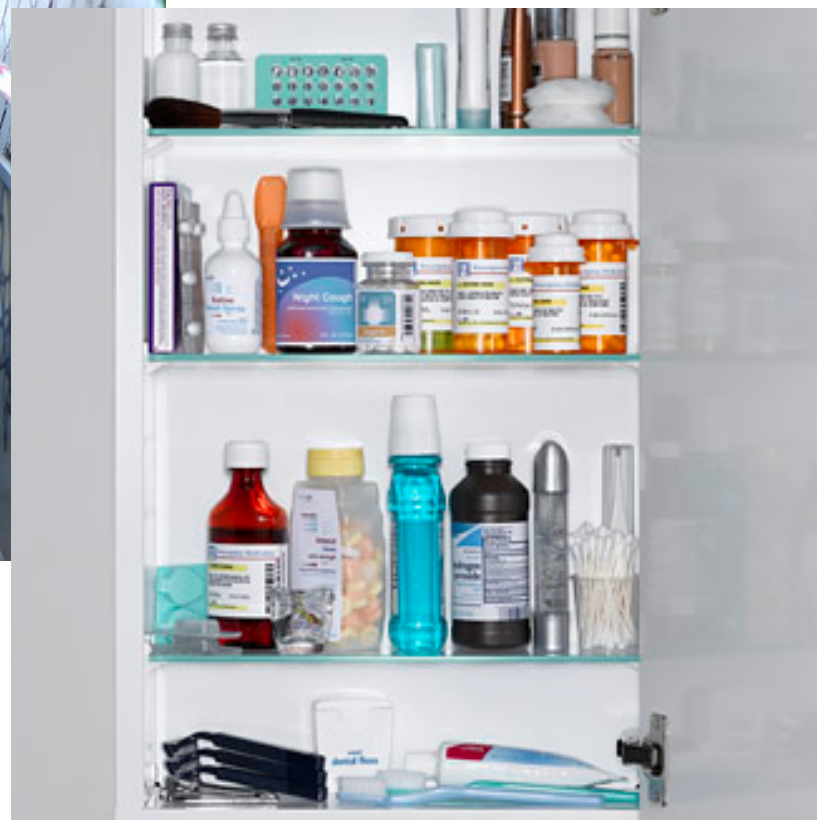
(by Number of Deaths, All Ages, North Carolina Residents: 2008)



\* *Unintentional Other* and *Unintentional Unspecified* are two separate categories. *Other* comprises several smaller defined causes of death, while *Unspecified* refers to unintentional deaths that were not categorized due to coding challenges.

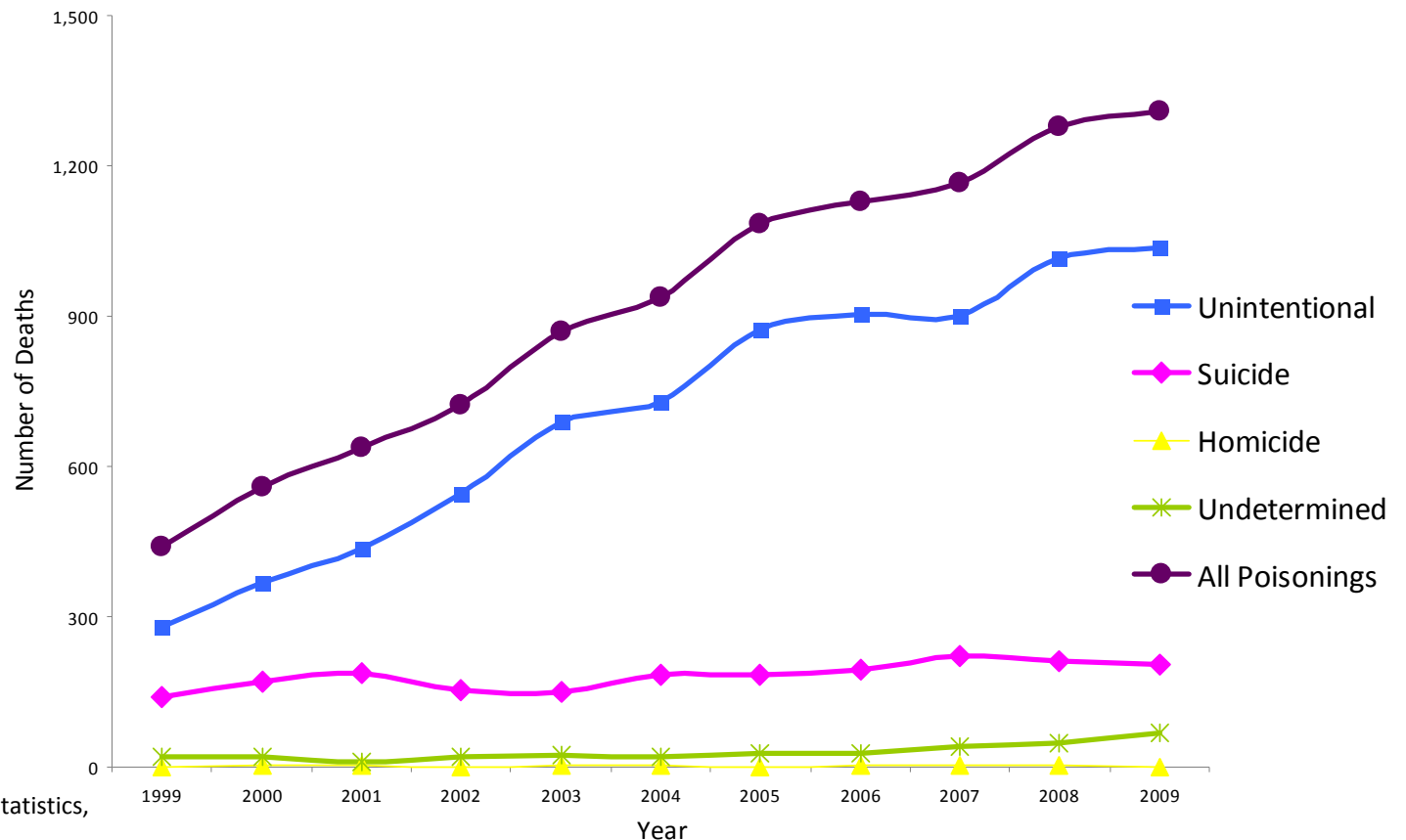
Source: NC State Center for Health Statistics, Death file 2008; Analysis by Injury Epidemiology and Surveillance Unit

# Unintentional Poisoning



## Poisoning Deaths: N.C., 1999-2009\*

- In 1999, the number of unintentional poisoning deaths was 279; in 2009, the number of deaths had increased to 1,036.



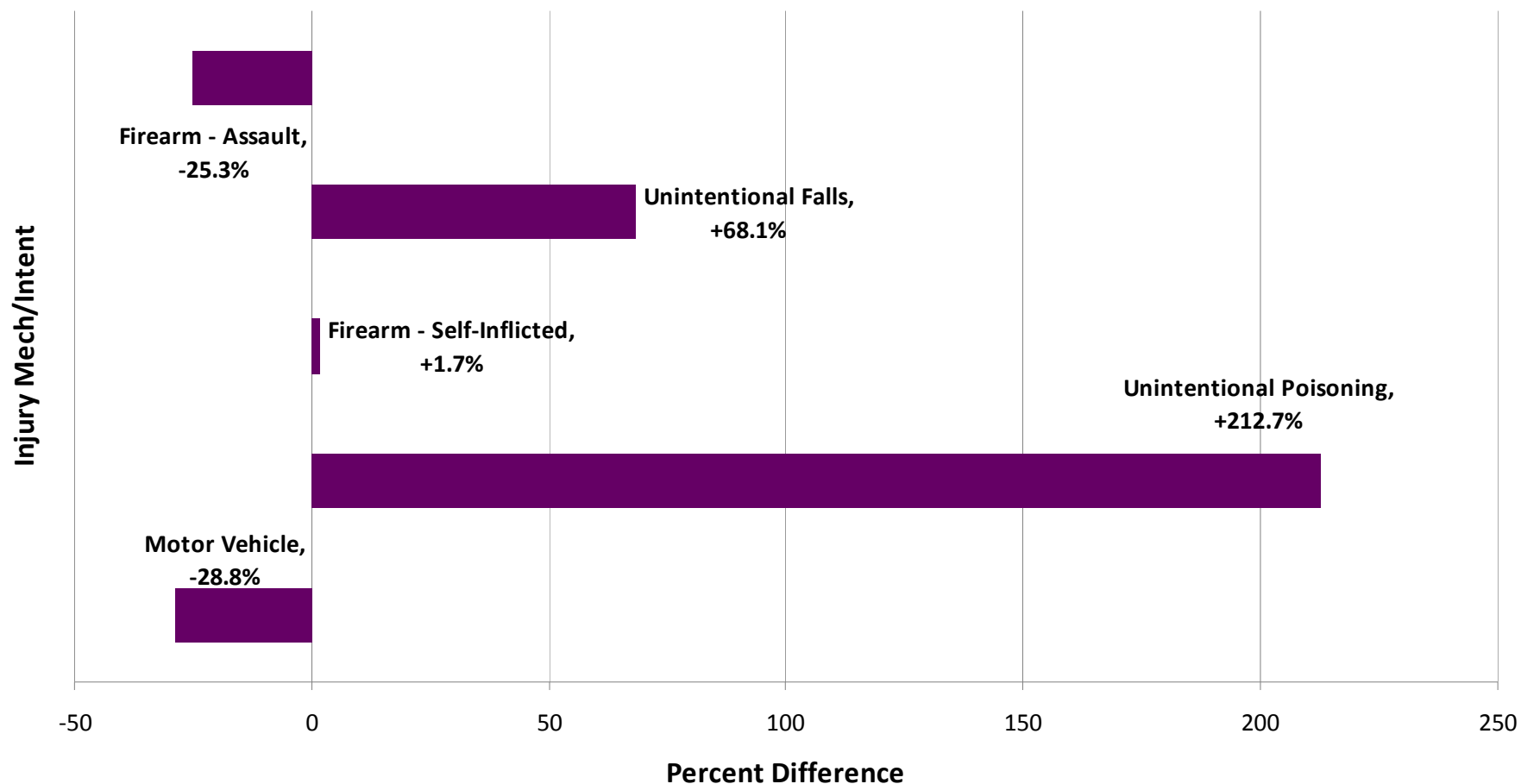
\*Provisional data.

Source: N.C. State Center for Health Statistics,  
Vital Statistics-Deaths, 1999-2009  
Analysis by the Injury Epidemiology and  
Surveillance Unit



# Percent Change in Rates Between 1999 and 2009

## Leading Causes of Injury Deaths: N.C. 1999 to 2009\*



\*Provisional data.

Source: N.C. State Center for Health Statistics, Vital Statistics-Deaths, 1999-2009  
Analysis by Injury Epidemiology and Surveillance Unit



# From Data to Action



**Living lives to their full potential**



# From Data to Action

## **Basic Demographics, 2008**

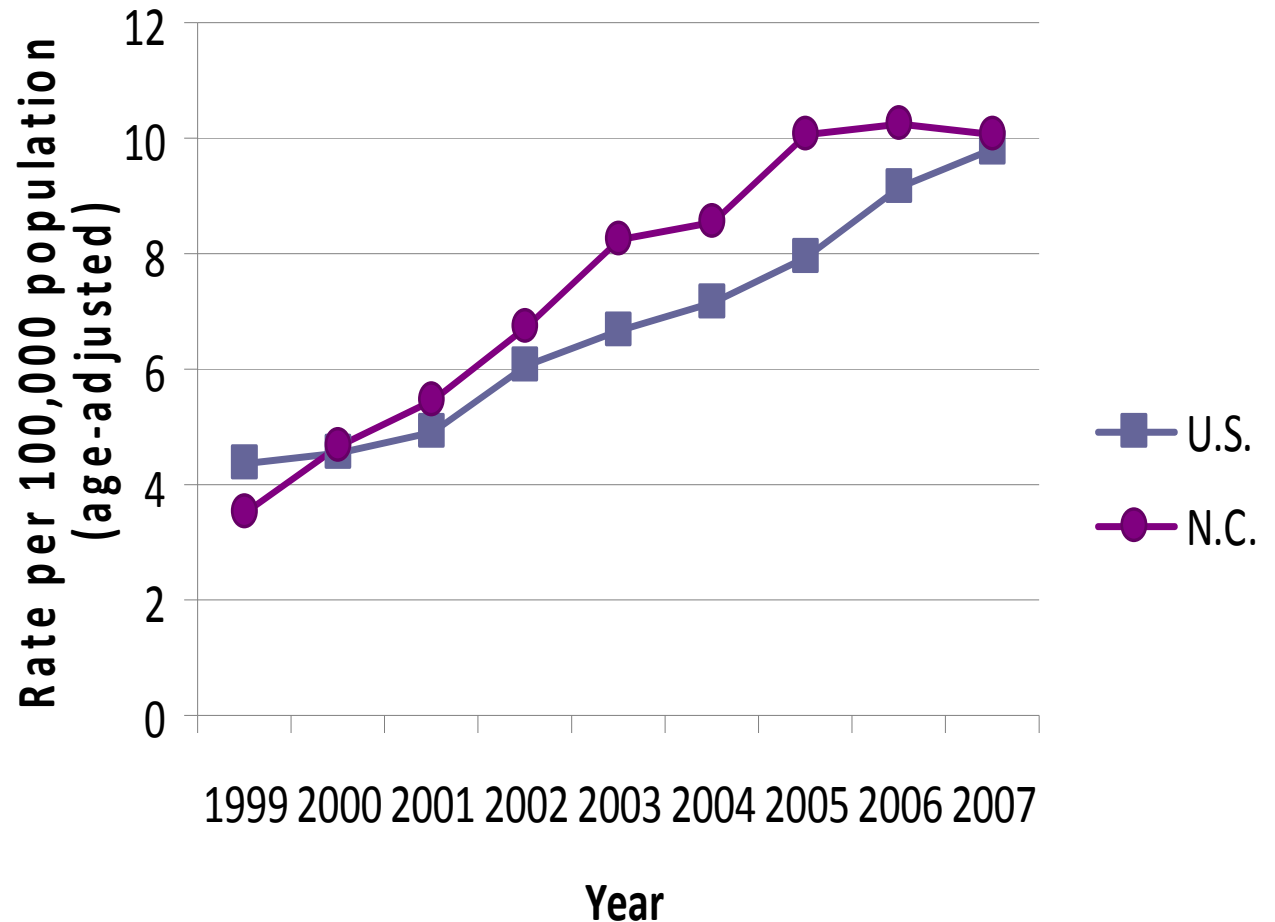
**Male- 66%**

**White- 88%**

**Age group 35 to 54- 58%**

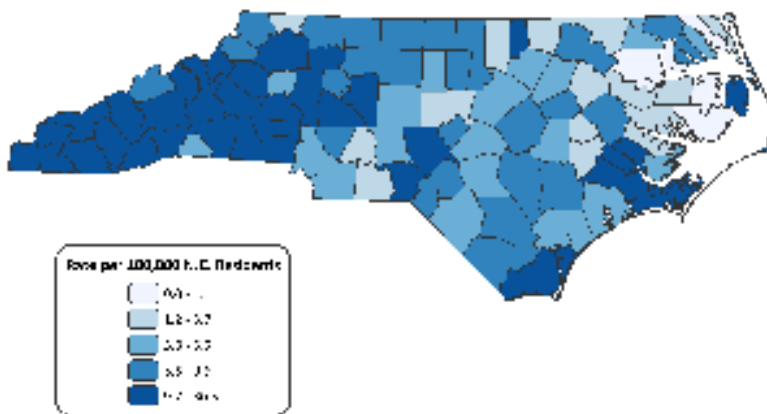
## Rates of Deaths Due to Unintentional Poisonings: N.C. and the United States, 1999-2007

- Rates of deaths due to unintentional poisonings are increasing in both the United States and N.C. In 2007, N.C. had a unintentional poisoning rate that was approximately 3% higher than the U.S.

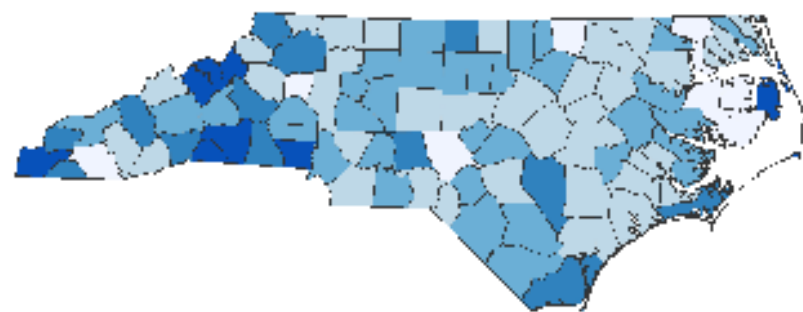


# Unintentional Poisoning Deaths by County: N.C., 1999-2008

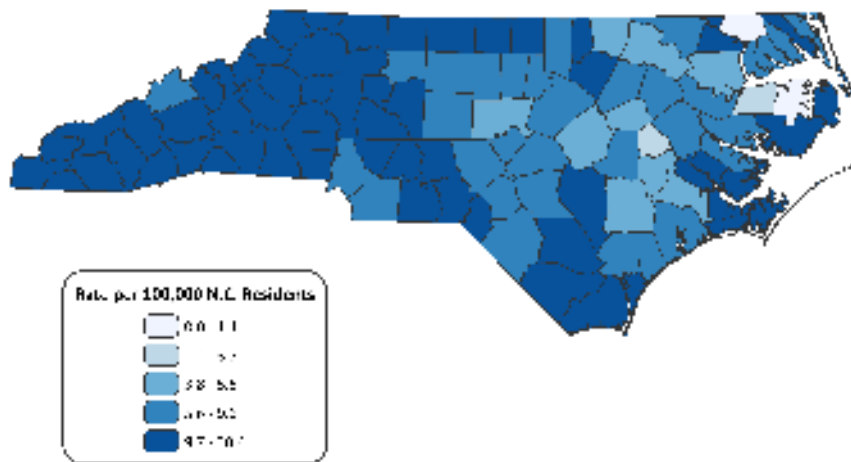
2002 - 2004



1999 - 2001



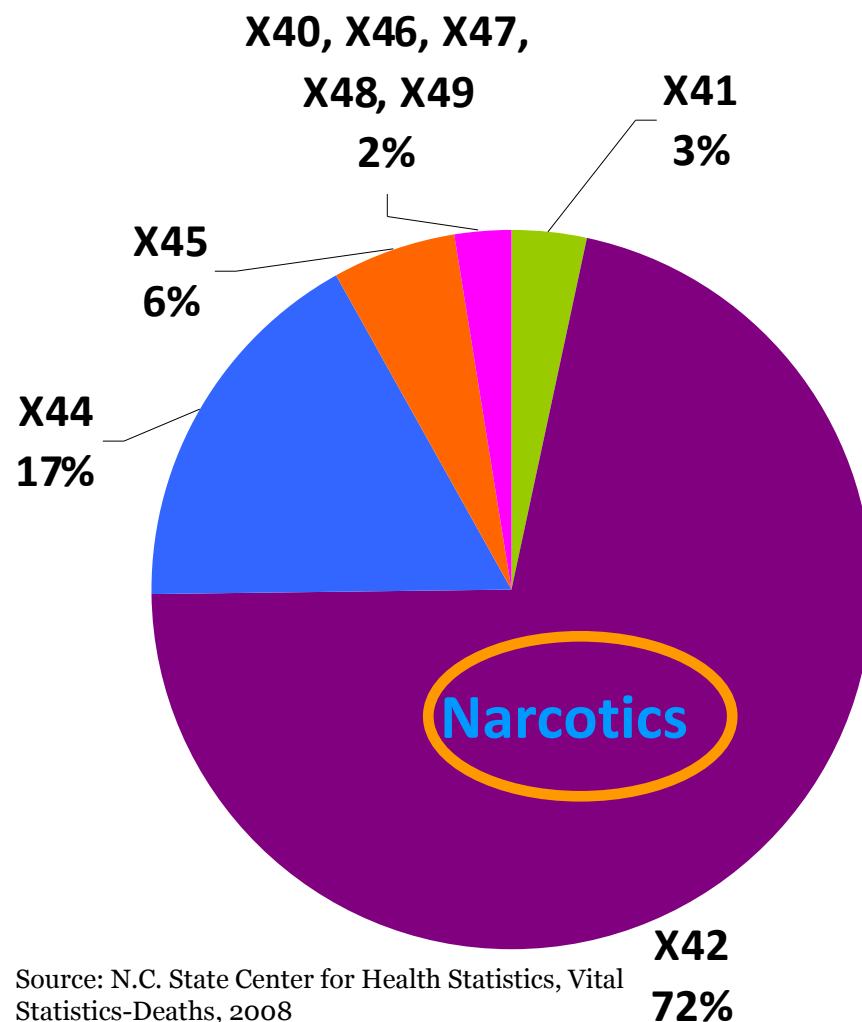
2005 - 2008



Source: N.C. State Center for Health Statistics, Vital Statistics-Deaths, 1999-2008  
Analysis by Injury Epidemiology and Surveillance Unit

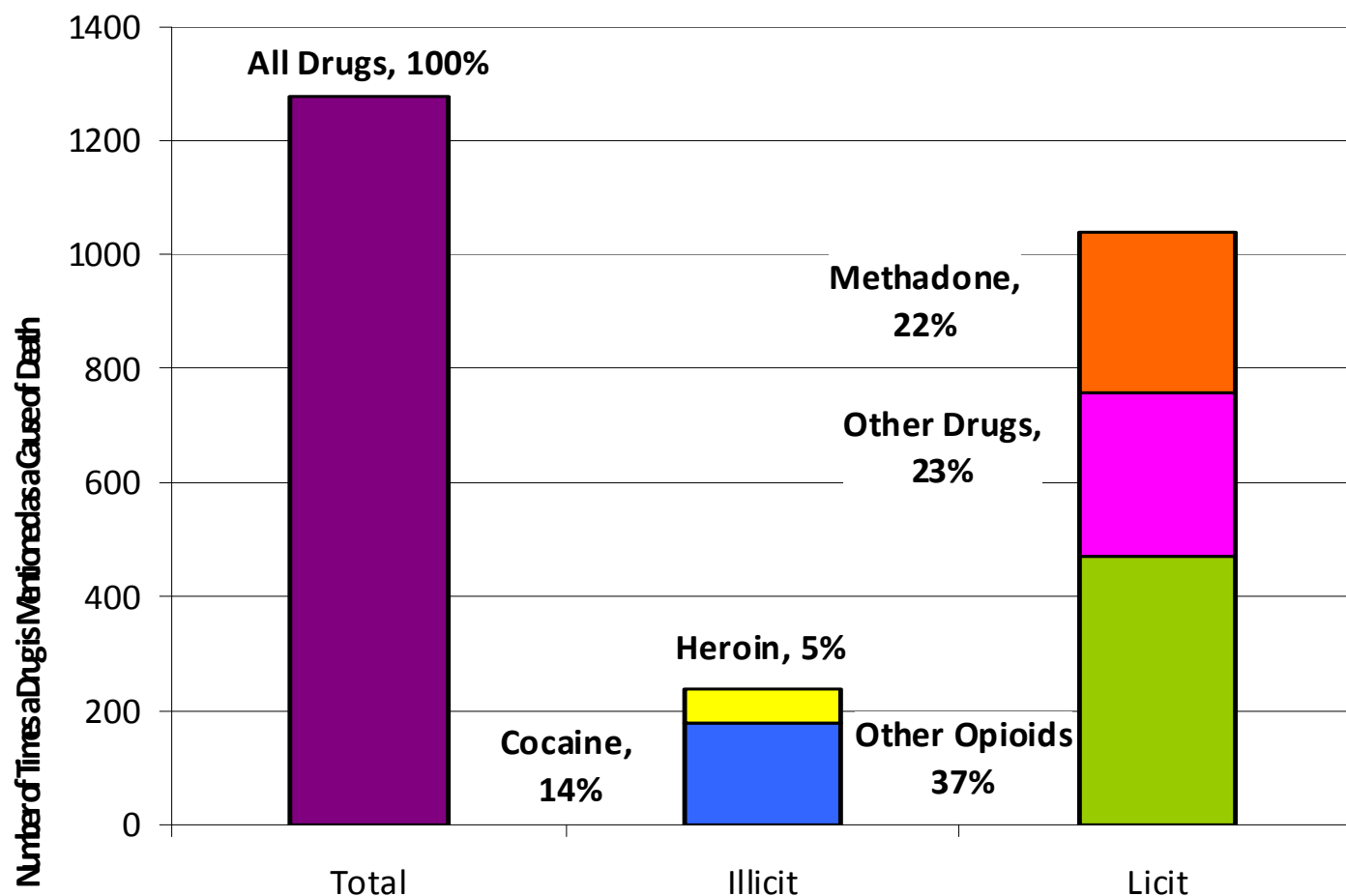
## Primary Cause of Death Due to Unintentional Poisonings: N.C., 2008

Substance	X-Code	Number
Non-opioid analgesics	X40	7
Anti-epileptic and sedative-hypnotics	X41	33
Narcotics and hallucinogens	X42	726
Drugs acting on the autonomic nervous system	X43	0
Other /unspecified drugs	X44	175
Alcohol	X45	57
Organic solvents	X46	2
Other gases	X47	9
Pesticides	X48	1
Other/unspecified chemicals	X49	6



Source: N.C. State Center for Health Statistics, Vital Statistics-Deaths, 2008  
Analysis by Injury Epidemiology and Surveillance Unit

# Number of Times in which a Drug was Mentioned as a Cause of Death: N.C., 2008



Source: N.C. State Center for Health Statistics, Vital Statistics-Deaths, 2008  
Analysis by Injury Epidemiology and Surveillance Unit

\*Categories are not mutually exclusive

Includes licit drugs that are misused/abused

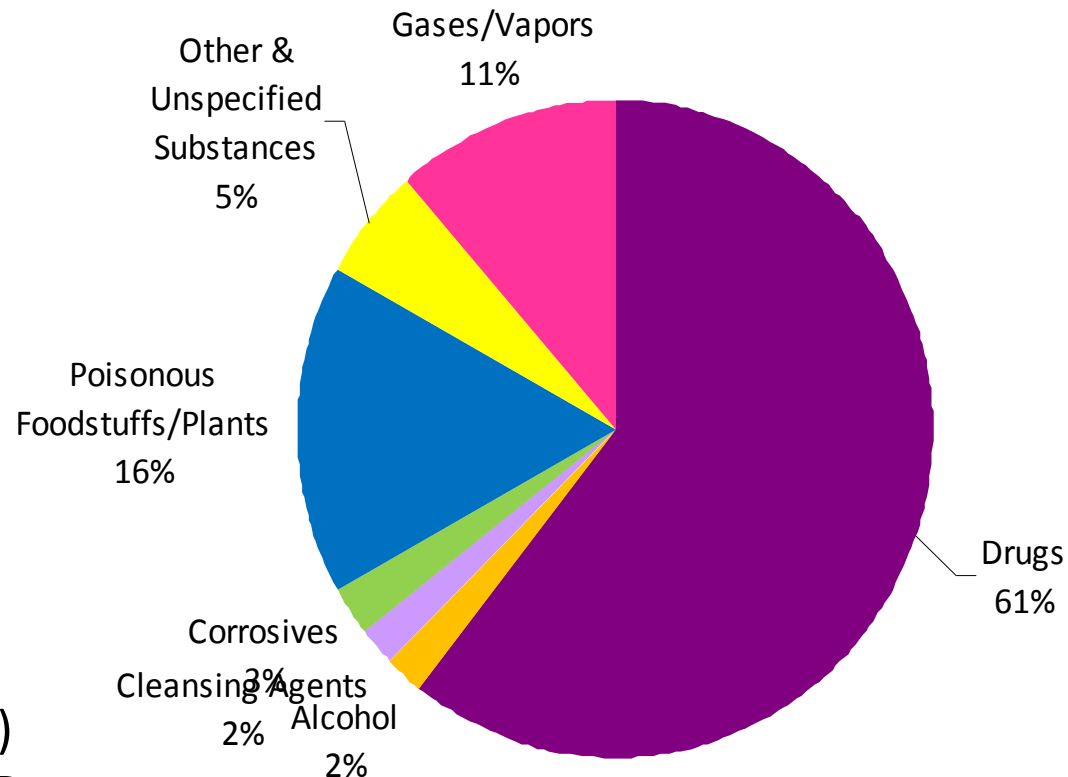
# Hospital Discharge<sup>a</sup>, Emergency Department Visits<sup>b</sup>, and Carolinas Poison Center Calls<sup>c</sup> Due to Unintentional Poisonings: N.C., 2007

- Hospital discharges, emergency department (ED) visits, and calls to the Carolinas Poison Center (CPC) are far more common than deaths due to unintentional poisonings.

aSource: N.C. State Center for Health Statistics, Vital Statistics-Deaths 2007  
bNC DETECT-ED-2007  
Analysis by the Injury Epidemiology and Surveillance Unit  
cCPC 2007  
Analysis by CPC

		Hospital Discharges		Emergency Dept. Visits		Carolinas Poison Center Calls	
		<u>Number</u>	<u>Rate</u>	<u>Number</u>	<u>Rate</u>	<u>Number</u>	<u>Rate</u>
<b>Gender:</b>							
	Male:	1,618	36.5	4,105	92.7	31,442	710.1
	Female:	1,827	39.4	4,591	99.1	31,970	690.0
<b>Total:</b>		3,445	38.0	8,696	96.0	63,412	699.8
<b>Age Group (Years)</b>							
	00-04	149	23.4	1,823	285.9	37,059	5,811.7
	05-09	22	3.5	294	48.1	5,075	795.9
	10-14	19	*	203	34.2	2,131	359.0
	15-19	118	19.0	594	95.8	1,627	262.4
	20-24	163	26.7	598	98.0	1,900	311.4
	25-34	356	29.2	1,091	89.5	3,520	288.7
	35-44	584	43.5	1,232	91.9	3,441	256.5
	45-54	725	55.7	1,181	90.8	2,929	225.2
	55-64	527	51.5	733	71.6	2,375	232.1
	65-74	399	67.4	466	78.7	1,598	270.0
	75-84	278	75.4	331	89.7	1,117	302.8
	85+	105	73.6	150	105.2	525	368.1
<b>Total:</b>		<b>3,445</b>	<b>37.9</b>	<b>8,696</b>	<b>96.0</b>	<b>63,297</b>	<b>696.5</b>

# Causes of Unintentional Poisoning, NC DETECT: January – June, 2010\* (ED Visits = 6, 828)



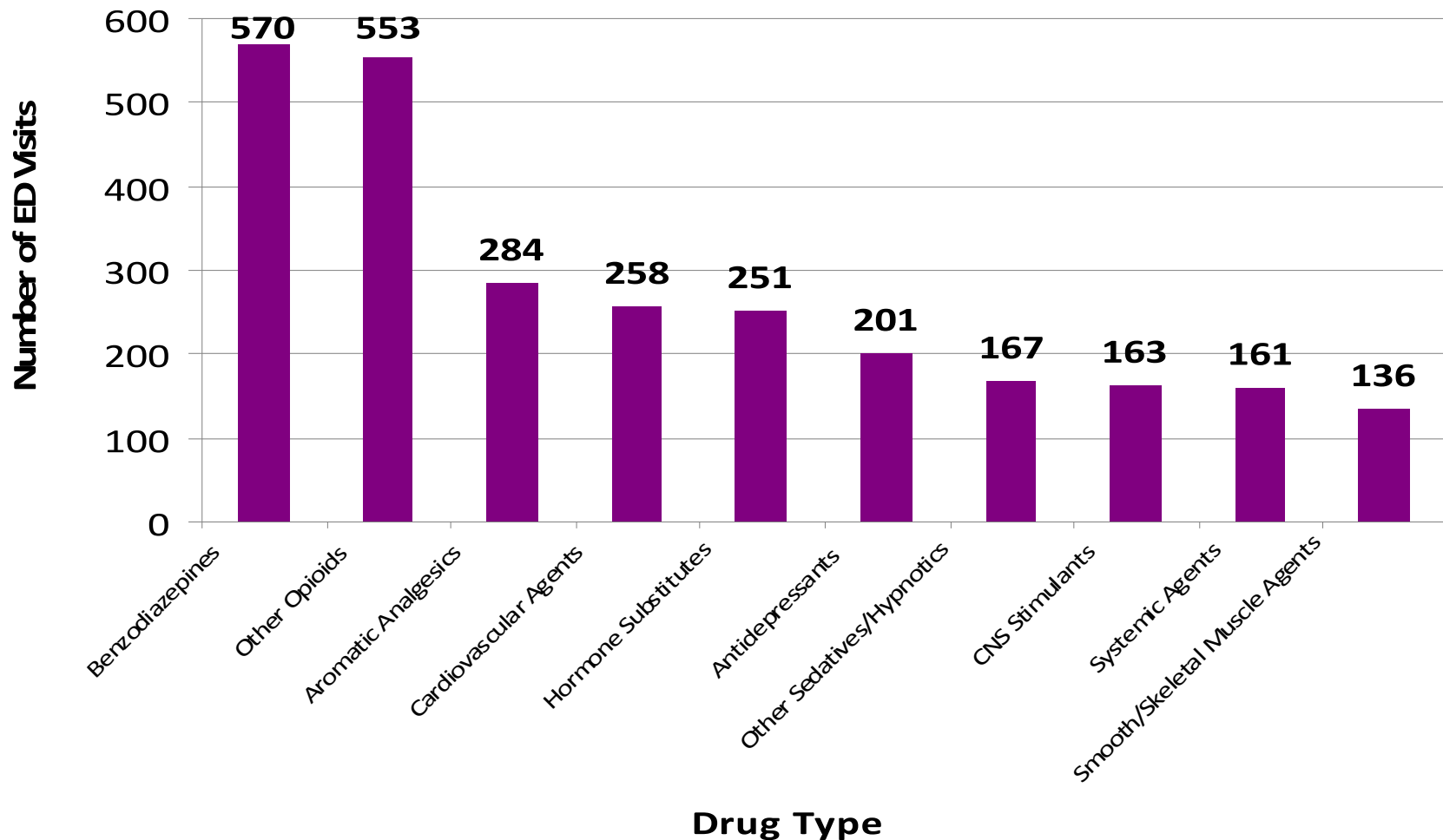
- Drugs (over-the-counter, prescription, and illicit drugs) were mentioned in 61% of ED visits due to unintentional poisonings.

**\*Provisional data: final diagnoses may take up to three months.**

Source: NC DETECT, 2009  
Analysis by Injury Epidemiology and Surveillance Unit



## The Ten Most Frequently Cited Drugs in ED Visits Due to Unintentional Poisonings, NC DETECT : 2010\*

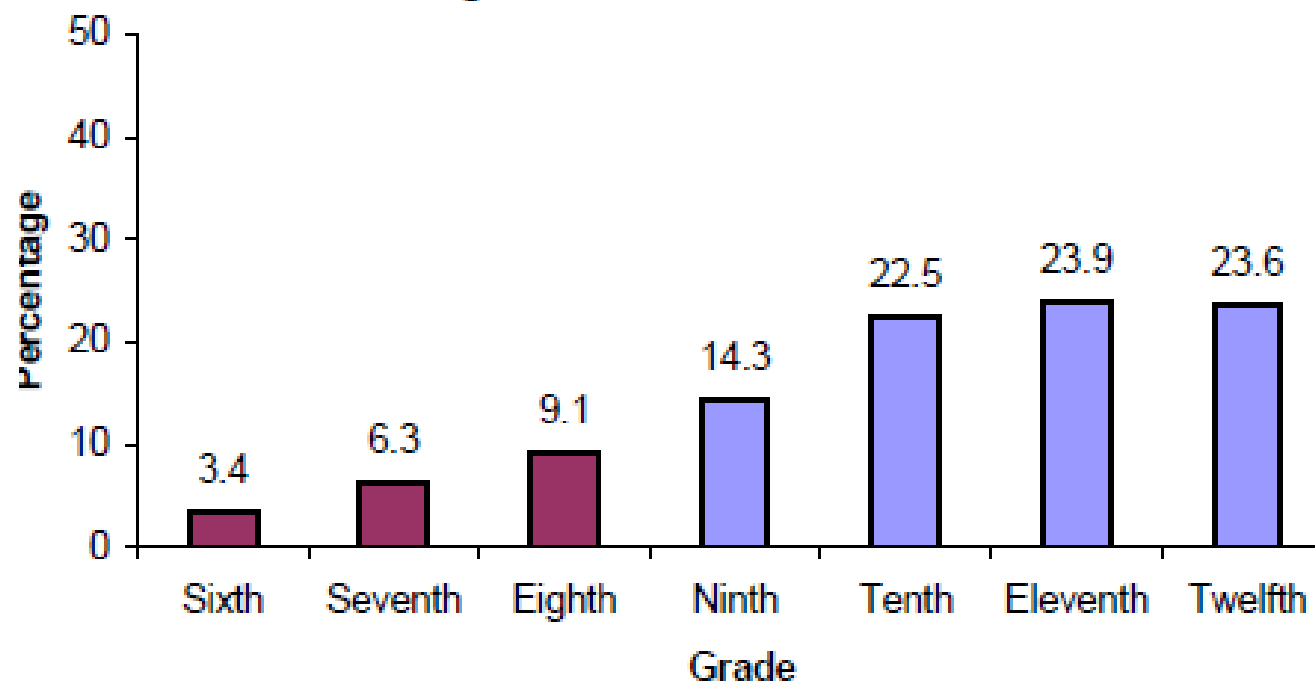


**\*Provisional data Jan-June: final diagnoses may take up to three months.**

Source: NC DETECT, 2009  
Analysis by Injury Epidemiology and Surveillance Unit

# From Data to Action- YRBS

Percentage of N.C. middle\* and high school students who have taken a prescription drug such as OxyContin, Percocet or Demerol without a doctor's prescription, by grade level: N.C. YRBS 2009



YRBS= Youth Risk Factor Surveillance System

# Unintentional Poisonings



\* 2008 death file, 2007 hospitalization discharge and NC DETECT (Emergency Department visits)